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ABSTRACT

A study explored the applicability of emotion theory as a paradigm for explaining the effect of speaker delivery upon credibility and listener comprehension. Subjects were 60 undergraduate students from a large southeastern university. One group of subjects heard a speaker deliver an informative speech with varied delivery. A second group of subjects heard the speaker deliver the same speech with unvaried delivery. After the speeches, subjects were administered tests of source credibility (as measured by nine semantic scales, developed by Berlo, Lemert, and Mertz), comprehension (as measured by a 20-item multiple-choice test), and emotional response (measured by scales developed by Mehrabian and Russell, and further tested by Biggers, Beebe and Masterson). The results support previous research which suggested that varied delivery improves credibility and listener comprehension. More importantly, the results suggest that emotional response is a significant mechanism that connects perception of delivery to estimations of a speaker's character, expertise and dynamism. Comprehension of the message is not as dependent on either emotional response or credibility; thus comprehension seems to be a function of cognitive rather than emotional responses. (Five tables of data are included and four pages of references are attached.) (ARH)

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EMOTION-ELICITING QUALITIES OF SPEECH DELIVERY AND THEIR EFFECT ON CREDIBILITY AND COMPREHENSION

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EMOTION-ELICITING QUALITIES OF SPEECH DELIVERY AND THEIR EFFECT ON CREDIBILITY AND COMPREHENSION

Abstract

The purpose of this study was to explore the applicability of emotion theory as a paradigm for explaining the effect of speaker delivery upon credibility and listener comprehension. Based upon research and theory which would predict relationships between varied and nonvaried delivery, listener emotional response, source credibility and listener comprehension, five hypotheses were tested. One group of subjects heard a speaker deliver an informative speech with varied delivery. A second group of subjects heard the speaker deliver the same speech with unvaried delivery. The results support previous research which suggests that varied delivery improves credibility and listener comprehension. More importantly, the results suggest that emotional response is a significant mechanism that connects perception of delivery to estimations of a speakers character, expertise and dynamism. Comprehension of the message is not as dependent on either emotional response or credibility; thus comprehension seems to be a function of cognitive rather than emotional responses. Implications for further study are presented.

EMOTION-ELICITING QUALITIES OF SPEECH DELIVERY AND THEIR EFFECT ON CREDIBILITY AND COMPREHENSION

Since antiquity communication scholars and teachers have affirmed the importance of good speech delivery as a determinant of speech effectiveness. Several lines of research support this assumption (Knower, Phillips, and Keoppel, 1945; Heinberg, 1963; Andersen and Withrow, 1981; Gundersen and Hopper, 1976; Petrie, 1963; Monroe, 1937; Cobin, 1963; Thompson, 1967). Specifically, speaker delivery has been demonstrated to enhance both credibility and comprehension (Miller and Hewgill, 1964; Beebe, 1974, Beebe, 1980; Sereno and Hawkings, 1967; Pearce and Conklin, 1972; Glasgow, 1952). While the value of delivery has been supported, there are few paradigms which provide cogent theoretical explanations for speaker delivery's power. The key attributes of effective delivery which enhance perceived speaker effectiveness have been documented (e.g., eye contact, vocal variation, appropriate gestures). We do not know why specific delivery variables elicit such desirable effects as improved listener comprehension and enhanced speaker credibility. The purpose of this study was to explore the applicability of emotion theory as a paradigm for explaining the effect of speaker delivery upon speaker credibility and listener comprehension.

Overview of Emotion Theory

Recent theoretical and experimental work in the area of human emotional response suggests that the emotion-eliciting qualities of a set of stimuli can be described parsimoniously, no matter how complex the stimuli set (Mehrabian, 1980). The emotional response of an individual to a stimulus is posited to relate systematically to a generic set of behaviors conceptualized along an approach-avoidance continuum (Russell and Mehrabian, 1974).

Emotions elicited by a stimulus can be described as an affective, or feeling state, that is the primary (rudimentary and precognitive) response of the organism to that stimulus. This affective state can be described by a parsimonious set of independent dimensions: pleasure-displeasure, arousal-nonarousal, and dominance-submissiveness. Pleasure-displeasure ranges on a continuum from extreme pain or unhappiness to extreme happiness or ecstasy. Arousal ranges from sleep to frenzied excitement. The third dimension, dominance-submissiveness, ranges from extreme feelings of being influenced and controlled to feelings of mastery and control. These three dimensions are both necessary and sufficient to describe any emotional state (Mehrabian, 1980).

The theory also suggests that the emotions elicited by a stimulus affect behavior. Behavior is conceptualized in terms of a generic class of actions called approach-avoidance. Approach-avoidance includes not only movement toward or away from but also includes any expression of liking, preference or desire to explore. Behaviors are seen as representing some point along a continuum ranging from desire to be associated with the stimulus to extreme desire to be disassociated from it.

The emotional responses are related to the approach-avoidance variable in such a manner that increased pleasure produces greater approach.

Increased arousal and increased dominance also produce greater approach but also interact with pleasure to produce more complex results. Pleasure and arousal interact so that the arousal reaction acts as a drive on the basic pleasure response so that as arousal increases approach will increase if the pleasure is high but avoidance will increase if pleasure is low. Dominance acts as permission to behave so that in a three-way interaction increased dominance will produce increased approach toward a pleasurable stimuli and increased avoidance of an unpleasurable one.

Measurement Issues

A series of paper and pencil measuring instruments have been developed to measure pleasure, arousal, and dominance. Each of these instruments has produced high reliability scores (alpha above .80) in previous research (Russell and Mehrabian, 1974; Biggers, Beebe and Masterson, 1984).

Emotion and Delivery

Mehrabian (1981) has suggested that nonverbal communication (he prefers the word implicit communication) is primarily used to convey emotion, like-dislike and attitudes. His work suggests that the meaning of nonverbal behaviors is decoded along three dimensions of affect: pleasure-displeasure, arousal-non arousal, and dominance-submissiveness.

Evidence suggests that nonverbal variables are the primary means for communicating emotional states (Mehrabian, 1972; 1981). Facial expression appears to be the primary source of emotional display (Ekman and Friesen, 1969; Mehrabian, 1981). Vocal cues have also been found to be a rich source of communicating emotional states (Mehrabian, 1981; Fairbanks and Pronovost,

1939; Davitz and Davitz, 1959). Gestures and posture, while not as significant as the face and voice, are also a source of emotional meaning (Mehrabian, 1981, 1972 and 1969).

Indeed, Biggers and Pryor (1982) found that variations in the emotions elicited by a photograph of a speaker caused respondents to rate the speaker as more or less expert and trustworthy. They did not vary delivery but manipulated the pleasure elicited by the background of a slide picturing the speaker. Biggers and Walker (1984) went one step further and placed subjects in rooms which elicited varying degrees of pleasure. Subjects listened to an audio tape of a persuasive message after soaking in the environment. Those in the more pleasurable room responded more positively to the speech and rated the speaker as more credible.

There is evidence that speech delivery variables play a major role in enhancing or detracting from a speaker's perceived credibility. A delivery presentation in which the speaker has direct eye contact, varied vocal inflection and uses a variety of different gestures will usually result in a speaker being perceived as more dynamic, expert and trustworthy. (Beebe, 1974; Beebe, 1980; Jensen and Garner, 1972; Bettinghaus, 1961). Such delivery variables are examples of nonverbal behaviors which primarily impact receivers emotionally.

Given the evidence that speaker delivery variables communicate emotionally and that emotions influence credibility, it seems reasonable to suggest that listener emotional response may help explain relationships between delivery and enhanced credibility. Listener emotional responses would then be thought of as an intervening variable that function to connect variation in delivery to enhanced or diminished perceived speaker credibility. In this conceptualization, changed delivery would be thought of as producing increased or decreased pleasure, arousal and dominance which

would in turn produce increased or decreased desire to be associated with the stimulus. A desire to approach would translate into ratings of greater credibility as a desire to avoid would become lower credibility.

Besides speaker credibility, evidence suggests that speaker delivery variables can also effect listener comprehension (Beebe, 1980; Cobin and McIntyre, 1961; Knower, Phillips, and Keoppel, 1945; Coats and Smidchens, 1966). The listener's emotional response to a message as affected by delivery may thus also help explain differences in listener comprehension. This study will also investigate the relationships between speaker delivery and the effect of listener emotional response upon listener comprehension.

Hypotheses

Based upon previous research and theoretical relationships between speaker delivery, listener emotional response, source credibility, and listener comprehension this study will test the following hypotheses:

H1: A varied delivery style will result in higher evaluations of source credibility than will a nonvaried delivery style.

H2: A speaker's delivery style (varied or nonvaried) will result in variations in the emotions elicited in audience members when listening to an informative speech.

H3: Variation in emotional response will be related to variations in source credibility so that regression equations can be produced in which each of the dimensions of source credibility is explained with emotional responses.

H4: A varied delivery style will result in higher comprehension of the message of an informative speech than will a nonvaried delivery style.

H5: Variation in emotional response will be related to variation in comprehension so that a regression equation can be produced in which the dependent variable is the comprehension score and the predictor variables are emotion.

METHOD

Subjects

Subjects were 60 undergraduate communication students from a large Southeastern university. Subjects were told that the speaker was practicing a speech for a student project. They were asked to listen and provide feedback to help the speaker improve. Subjects were later informed of the true nature of the study.

Independent Variable

Speaker delivery served as the independent variable. An experienced female speaker delivered the speech to two groups of subjects. In the "varied delivery" treatment she was trained to deliver the speech with variation in vocal inflection, at least 80% eye contact with the audience, and use gestures for emphasis. In the "nonvaried delivery" treatment she was trained to deliver the speech with virtually no vocal variation, no more than 15% eye contact with the audience, and use no gestures for emphasis.

Dependent Variables

Source credibility was measured by nine semantic scales, originally developed by Berlo, Lemert, and Mertz (1969) to measure three factors of speaker credibility. These scales had been factor analyzed in two previous

studies (Beebe, 1974 and Beebe, 1980) and demonstrated high reliability.

Comprehension was measured by a twenty-item, four-foiled multiple-choice test. The questions were prepared to cover the material presented in the informative speech about computer music. The validity and reliability of the test has been appropriately demonstrated in two previous studies (Beebe 1974 and Beebe, 1980).

Emotional response was measured using scales, developed by Mehrabian and Russell (1974) and further tested by Biggers, Beebe and Masterson (1984). These scales measure pleasure, arousal and dominance. Items from all three scales were randomly intermixed and half of the items reversed. Scales were presented with standard instructions asking subject to indicate the way the speaker made them feel.

Procedure

When the subjects had arrived in their classroom they were told that they were going to listen to a student present a short informative speech. The experimenter further explained that the student was completing an individual directed study project with her professor and that she needed to present the speech she had prepared to an audience so that she could receive appropriate feedback about her performance. They were also told that she would like to have some feedback about both her as a speaker and the speech she will deliver. They were told the speech was being videotaped so that she could observe and evaluate her performance with her instructor at a later time. She was then introduced to the class by her first name and delivered the speech using the appropriate delivery treatment. Upon the conclusion of the speech the speaker walked to the back of the room. The investigator came to the front of the room and instructed the subjects to complete a series of

semantic differenial scales. Subjects were given the multiple choice test over the speech and were also given the emotion scales to complete. In addition, subjects were asked to provide any written comments they wished to make about the speaker's speech or presentation. The same procedures were used for both the varied and nonvaried delivery treatments.

Subjects in a control group were given the multiple choice test to document the validity of the test. Subjects were instructed to read each question and select the appropriate answer to the best of their ability. After the subjects had completed the test and their papers were collected they were told the true nature of the study.

RESULTS

Data Preparation

All data were entered into the computer. Reversed items were recoded and scales created as appropriate. Data were cleaned by examining frequencies and ranges. Alpha was set at .05 for all tests. Reliabilities were calculated for each scale; as can be seen from table 1 each produced an acceptable alpha.

Place Table 1 Here

Manipulation Check

Central to the success of this experiment is the manipulation of certain elements of delivery. Specifically, in the varied delivery condition the speaker should have had more varied inflection, more expressive facial movements, more frequent gestures and more eye contact.

A manipulation check was carried out by having persons, not otherwise involved in the study, view the videotapes of the presentations and complete scales to measure the key behaviors. These subjects did not know of the intent of the study, t-tests were used to see if scores were indeed different. As can be seen in table 2, inflection, pronunciation, facial expressions, gestures, rate and eye contact were all perceived to have been different. The raters estimated that the speaker had over 85% eye contact during the varied treatment and less than 7% eye contact during the nonvaried treatment. Each of the differences was in the intended direction.

Place Table 2 Here

Tests of Hypotheses

The first hypothesis suggested that the differences in nonverbal elements of delivery would produce differences in ratings of source credibility. This relationship was tested by comparing the character, expertise and dynamism scores for the two experimental groups. Those who received the varied delivery treatment perceived the speaker as having higher character ($x1=6.4$, $x2=7.2$, $t=5.6$, $p=<.05$), as being more expert ($x1=6.0$, $x2=8.3$, $t=85.9$, $p=<.05$) and as more dynamic ($x1=3.9$, $x2=6.2$, $t=43.5$, $p=<.05$).

These findings confirm earlier research.

Hypothesis two suggested that those who received the varied delivery treatment would have different emotional reactions to the speech. Indeed, those who received the varied delivery treatment reported that they felt greater pleasure ($x1=3.5$, $x2=6.6$, $t=90.9$, $p=<.05$) greater arousal ($x1=3.3$, $x2=5.4$, $t=34.6$, $p=<.05$) and more dominance ($x2=5.6$, $x1=4.6$, $t=5.8$, $p=<.05$).

Place Table 3 Here

Hypothesis three suggested that the differences in emotional response associated with different nonverbal elements of delivery might be related systematically to ratings of expertise, character and dynamism. To test this notion, three regressions were conducted. In each regression one of the dimension of credibility was used as the dependent variable while pleasure, arousal dominance and there interactive terms were tried as predictors.

Each regression statement was written so that all terms could enter but to do so each term, after the first, would have to add explanatory power to the equation that was at least 70% unique to the new variable. In this manner, the potential problems associated with multicolinearity could be reduced greatly.

This procedure produced a significant equation for the explanation of character ($F=7.91$, $df=1,34$, $p=<.05$). Pleasure is the only significant predictor accounting for 18% of the variance and relating positively to character. A significant equation was also produced for the explanation of expertise ($F=21.17$; $df=1,33$, $p=<.05$). Again, only one term entered the equation. The pleasure squared times arousal interactive term accounted for 54% of the variance and related positively to expertise.

A significant equation was also produced for the explanation of dynamism ($F=24.87$, $df=2,33$, $p=<.05$). Two terms were responsible for the explanation; the pleasure by dominance interactive term and the arousal term. The interactive term accounted for 51% of the variance in dynamism scores and was related positively while the arousal term added 8% to the explanation and was also positively related.

Place Table 4 Here

Hypothesis four predicted that comprehension of the content would be affected by delivery. To test this notion, an instrument was devised and administered to each experimental group as well as a control group. Analysis of variance demonstrated a significant difference among the groups ($F=3.8$, $df=2,56$, $p=<.05$). The Scheffe test indicated that there was a significant difference between the varied and nonvaried delivery groups. There was no difference between the control and nonvaried delivery groups ($x1=6.3$, $x2=9.3$, $x3=7.6$). Again, these findings support earlier research.

To test hypothesis five, a final regression was conducted in which subjects scores on the comprehension test were used as the dependent variable and the emotion terms as well as the credibility scores were used as the predictor variables. This procedure produced a significant equation ($F=4.27$; $df=2,30$; $p=<.05$).

Two terms accounted for 29% of the variance in comprehension scores. Dynamism was related positively to comprehension and accounted for 21% of the variance. Dominance accounted for 8% of the variance and was related negatively to comprehension.

For each of the regressions, residuals were calculated and plotted to see if the assumptions for the statistical tests were met. In each case it

appeared that all the assumptions had been met. A correlation matrix is reported in table 5.

Place Table 5 Here

DISCUSSION

The results of this experiment seem to support the basic assumptions of our rationale. Variation in delivery had previously been shown to relate to variation in ratings of source credibility. It is also generally held that variation in nonverbal behavior primarily results in different emotional response. The beginning of this study simply confirms these ideas. The unique contribution may be the demonstration of our notion that variance in emotion may functionally relate nonverbal changes to credibility changes. Emotional reaction may be seen as an intervening variable.

We would suggest that emotional response is the mechanism that connects perception of nonverbal change to estimations of the character, expertise and dynamism of a speaker. If this notion is accepted, then we should begin to develop a typology of nonverbal behaviors and the changes that they create in emotional response. With the establishment of the relationship of the emotions to credibility, we can then predict what effect the change of emotion will have on the ratings of credibility. Specifically, if a change in nonverbal causes pleasure to increase it should also cause credibility to increase. If arousal is also increased then expertise and dynamism will increase more. If dominance is increased, ratings of dynamism will increase but comprehension will go down.

Finding support of the first and fourth hypotheses is not surprising. These findings have been produced by others. It is pleasing to note that

those results can be replicated with a different population in a different time and place. This suggests that the effect if fairly robust. Varied delivery produced higher ratings of credibility and improved listener comprehension as was expected.

Also of no great surprise was the set of findings suggesting that persons had different emotional reactions to varied and nonvaried delivery. Certainly the literature would suggest that a major component of the reaction to nonverbal communication should be emotional. Emotional response should then be different when the nonverbal is different. Finding that varied delivery produced greater feelings of pleasure and arousal was not surprising.

Finding that varied delivery produced higher feeling of dominance in the listener is interesting. One might have speculated that the more powerful, in control, delivery of the speaker would have produced feelings of submissiveness on the part of the listener. Indeed, if dominance is a perception of relative power between a stimulus and a perceiver, then the more powerful delivery should have produced more submissiveness.

It is possible that the dominance measures may have been misinterpreted by the respondants. Christ (1985) has suggested that when rating the emotions elicited by political candidates, for instance, persons are confused about the intent of the dominance items. Respondents do not know if we wish them to tell us if <u>they</u> feel dominant or if the target person is dominant. The results would be quite opposite of course. In this study, persons would be telling us that a speaker with varied delivery is more powerful and controlling than one with nonvaried delivery. This finding would be understandable but here we get the opposite. This problem needs to be resolved.

The most interesting and potentially the most important parts of the

study are the regression equations that relate emotional responses to the credibility scores. We assumed that emotional reaction might explain variability in these scores. Indeed, this is partially true.

Explanation of the character scores with pleasure is fairly straight forward. Pleasure is considered the best single predictor of approach toward a stimulus. The finding suggests that nonverbal behaviors which elicit a pleasure response on the part of an audience will increase estimates of the sources character. Interestingly, the theory would suggest that higher order interactions, pleasure and arousal for example, should be more important than the pleasure main effect. In this application, this notion is not supported. Explaining 18% of the variance in character is interesting but not overwhelming. It suggests that something other than emotion accounts for 82% of the ratings of Character that this speaker received.

Explanation of more than 50% of the expertise ratings of this speaker seems to be important. The pleasure squared times arousal term has been the best predictor of other responses in previous research (Biggers, 1987). Squaring the pleasure term merely allows for a better fit of the model to the data. The pleasure-arousal interactive term, without pleasure squared, is only slightly less correlated with expertise (.71 vs. .73). Arousal should act as a drive on the pleasure term. In this case, the best fit of the interactive term is achieved when the importance of the pleasure term is increased by squaring it and then multiplying by arousal. This suggests that this relationship is not linear as the pleasure-character one was.

Finding unique equations for the prediction of character and expertise is pleasing. The two are supposed to be independent components of credibility so we would expect to find different explanations for each. Finding such large differences in the explanatory power of emotion was not expected. This would suggest that expertise ratings are much more dependent

on emotion than are character ratings. We would have expected the opposite.

Finding a unique explanation for dynamism is also pleasing. The pleasure-dominance interaction term and the arousal term account for over 50% of the ratings of the dynamism of the speaker. Arousal would be expected since it is an estimate of the degree to which the listener feels stimulated by the speaker. Of interest is the fact that arousal is not the more important. In previous research (Biggers and Rankis, 1983) the pleasure and dominance terms have not interacted to predict approach. That makes this finding even more unique. It seems that a speaker is rated as more dynamic the more they make the listener feel pleasure and power.

This finding makes it even more important to determine how the listeners were reacting to the dominance scale. If they were telling us about the way the speaker was perceived, then these findings make a great deal more sense. If that is the correct interpretation then more dynamism is related to more pleasure and a feeling of being dominated by the speaker. The relative power of the speaker and the listener would then be the variable being measured. If, however, they are telling us of their feelings, as we asked, then more dynamism is related to more pleasure and a feeling of dominating by the respondent. The two interpretations are quite contradictory and need to be tested.

Comprehension of the material is not as dependent on either emotional response or credibility as might have been suggested. Less than one third of the comprehension score was explained in the regression analysis and that was largely explained by dynamism. This might suggest that comprehension is more cognitive than emotional, not a surprising idea.

Overall, it seems reasonable that differences in nonverbal elements of delivery cause different emotional reactions in listeners. These differences seem to relate systematically to different ratings of source credibility.

A next step in the research is to determine the emotional reactions that are related to specific nonverbal behaviors. If we can develop a typology of behaviors and relate them systematically to emotional response, we will be able to begin building a model to account for the relationship of behavior to response. Such a model can help communication teachers better understand the significance of specific delivery variables that we prescribe for our students.

TABLE ONE

Scale Reliabilities

Scale	# of Items	# of Cases	Alpha
Anxiety	3	32	.73
Pleasure	6	32	.90
Arousal	6	32	.87
Dominance	6	32	.77
Character	3	32	.69
Expertise	3	32	.81
Dynamism	2	32	.73
Comprehension	20	52	.78

TABLE TWO

Manipulation Check Data

Variable	Group	Mean	S.E.	t Value	p
Vocal inflection (Pitch)					
Unvaried	1	2.55	.24	13.37	<.01
Varied	2	6.55	.17		
Pronunciation					
Unclear	1	2.88	.35	3.33	<.01
Clear	2	5.00	.52		
Posture					
Formal	1	3.22	.40	.12	N.S.D.
Causual	2	3.11	.80		
Facial Expressions					
Unexpressive	1	2.77	.36	11.59	<.01
Expressive	2	7.00	.00		
Hand Gestures					
Intrequent	1	3.88	.56	5.52	<.01
Frequent	2	7.00	.00		
Speaking Rate					
Slow	1	2.77	.36	3.48	<.01
Fast	2	4.88	.48		
Eye Contact					
Nonexistant	1	2.33	.28	13.99	<.01
Continuous	2	6.66	.16		
% of Eye Contact					
0%	1	6.25	1.25	28.35	<.01
100%	2	86.87	1.87		

NOTES: Group 1 received the varied delivery condition while Group 2 received the nonvaried condition. Each group has 9 observations. Two tailed probabilities are reported. All scales are seven point.

TABLE THREE

Differences in Means for Dependent Measures

Dependent Measure	Group	N	Mean	S.E.	Cochrans'C	p	t Value	p
Anxiety	1	17	4.56	.47	.57	>.5	5.21	<.03
	2	19	3.21	.37				
Pleasure	1	17	3.53	.24	.53	>.7	90.9	<.001
	2	19	6.68	.21				
Arousal	1	17	3.31	.27	.55	>.6	34.6	<.001
	2	19	5.44	.23				
Dominance	1	17	4.65	.26	.57	>.5	5.89	<.03
	2	19	5.67	.29				
Character	1	17	6.49	.23	.52	>.8	5.66	<.03
	2	19	7.26	.22				
Expertise	1	17	6.03	.23	.83	<.01	85.94	<.001
	2	19	8.35	.10				
Dynamism	1	17	3.94	.24	.52	>.8	43.52	<.001
	2	19	6.21	.24				
Comprehensive Score	1	17	6.35A	.58	.62	<.01	3.82	<.03
	2	19	9.31B	.95				
(Control)	3	20	7.60A	.52				

NOTES: Scales are all 9 point except comprehensive score which ranges from 0 to 20. Group 1 received the nonvaried delivery while 2 received the varied delivery and 3 (Control) only answered the test. Comprehension means with different subscripts are different at the .05 level.

TABLE FOUR

Regression Analysis

Dependent Variable	Predictor	R2	Beta	F	p
Character	Pleasure	.18	.43	7.91	<.05
Expertise	Pleasure2X Arousal	.54	.67	29.21	<.01
Dynamism	PleasureX Dominance,	.52	.54	17.3	<.01
	Arousal	.08	.33	6.7	<.05
Comprehension	Dynamism,	.21	.69	12.15	<.01
	Dominance	.08	-.40	5.30	<.05

TABLE FIVE

Matrix of Correlation Coefficients

Character	Expertise	Dynamism	Pleas.	Ars.	P 2xA	GRD.	PXD
Character	.42	.46	.40	.11	.36	.07	.37
Expertise	--	.69	.70	.60	.71	.32	.67
Dynamism		--	.71	.60	.67	.46	.72
Pleasure			--	.63	.92	.28	.88
Arousal				--	.80	.25	.49
Pleasure 2X Arousal					--	.25	.81
Comprehension Score						--	.17
Pleasure X Dominance							--

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